



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,661	12/27/2004	Donald L. Rymer	AD6871USPCT	7413

7590 03/17/2006

Kevin S Dobson  
E I du Pont de Nemours and Company  
Legal - Patents  
4417 Lancaster Pike  
Wilmington, DE 19898

EXAMINER

BERNSHTEYN, MICHAEL

ART UNIT PAPER NUMBER

1713

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/519,661	Applicant(s) RYMER ET AL.	
	Examiner Michael Bernshteyn	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
     4a) Of the above claim(s) 1-5 and 13-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-18 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/27/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### DETAILED ACTION

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-5, drawn to a plasticized polyvinylbutyral.

Group II, claim(s) 6-12, drawn to a process for preparing PVB resin composition.

Group III, claim(s) 13-18, drawn to a plasticized PVB composition made by a process.

2. The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I claims is the claimed a plasticized polyvinylbutyral and this feature is not present in Groups II and III. The special technical feature of the Group II claims is the claimed process for preparing PVB resin composition and this feature is not present in Groups I and III. The special technical feature of the Group III claims is the claimed plasticized PVB composition made by a process and this feature is not present in Groups I and II. Therefore unity of invention is lacking.

3. During a telephone conversation with Mr. Kevin S. Dobson (Registration No. 32,181) on February 7, 2006 a provisional election was made with traverse to prosecute the invention of Group II, claims 6-12. Affirmation of this election must be made by applicant in replying to this office action. Claims 1-5 and 13-18 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Art Unit: 1713

4. Applicant is reminded that upon the cancellation of claims to non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
5. Claims 6-12 are active in the Application.

#### ***Claim Objections***

6. Claim 11 is objected to because of the following informalities: claim recites, "...is the surfactant" twice. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim recites the process of claim 8 wherein phosphoric acid is used as the acid reactant, but claim 8 does not have any acid reactant.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

Art Unit: 1713

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 6-8 and 10-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Klock et al. (EP 0 402 213 A1).

With regard to the limitation of instant claims 6-8 and 10-11, Klock discloses a process for preparing PVB composition having a mixture of butyral meso and butyral racemic stereoisomers using aqueous polyvinyl alcohol solution and butyraldehyde (abstract, page 5, lines 10-12). Agitation of reaction mixture takes place between 5 and 12°C during initially 10-90 minutes then the temperature increase up to 80°C and the process continuous during 1-4 hours. Dry weight PVA concentration is in the range 8-15% based on the total weight of solution. A surfactant (sodium dodecylbenzene sulfonate, **sodium lauryl sulfate** or **sodium dioctylsulfosuccinate**) is present in the amount of **0.3-0.4-wt%** based on the dry weight of PVA. In the next steps the **pH raises up to 9-11** and PVB composition is neutralized with neutral water (page 2, lines 3-34, examples 1-4, pages 5 and 6). Hydrochloric acid with density 1.18 is used as acid compound (example 1, page 5, line 20). The final products have a hydroxyl number between 18 and 22 and meso to racemic ratio (M/R) in the claimed range (examples 1-4, pages 5 and 6).

Klock does not disclose that pH mixture is from about 1.3 to about 2.5.

In view of substantially identical process, it is the examiner position that Klock 's process for preparing PVB composition inherently possesses this property because it contains the same main steps, used the same meso and racemic stereoisomers of butyral monomers, acidic aqueous PVA solution having the same concentration, the same surfactants in the amount within the claimed range and the obtained final products have the same main properties (hydroxyl number and meso to racemic ratio (M/R) are within the claimed ranges). Since the USPTO does not have equipment to do the analytical test, the burden is now shifted to the applicant to prove otherwise. *In re Fitzgerald*, 619 F 2d 67, 70, 205 USPQ 594, 596 (CCPA 1980).

Even if the disclosure of Klock does not satisfy the requirements of 35 USC 102(b), particularly with respect to the pH mixture, it still would have been obvious to one of ordinary skill in the art to arrive at the claimed process for preparing PVB composition, because it appears that the claimed process for preparing PVB composition is within the generic disclosure of Klock, and a person of ordinary skill in the art would have expected all embodiment of Klock to have similar property. Applicant has not demonstrated that the differences, if any, between the claimed process for preparing PVB composition and the process for preparing PVB composition by Klock give rise to unexpected results. The evidence presented to rebut *prima facie* case of obviousness must be commensurate in scope with the claims to which it pertains. See *In re Dill and Scales*, 202 USPQ 805 (CCPA 1979).

It is axiomatic that one who performs the steps of a process must necessarily produce all of its advantage. Mere recitation of a newly discovered property or function

what is inherently possessed by the things or steps in the prior art does not cause a claim drawn to those things to distinguish over the prior art. **Leinoff v. Louis Milona & Sons, Inc.** 220 USPQ 845 (CAFC 1984).

Therefore, the subject matter of the instant claim 6 and dependable claims 7, 8, 10 and 11 is met by Klock.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klock in view of Cummings (U. S. Patent 5,750,482).

With regard to the limitation of instant claim 9, Klock does not disclose sodium methyl cocoyl taurate as the surfactant.

Cumming discloses that the anionic surfactants include alkyl and alkylaryl sulfates and sulfonates, e.g., **sodium lauryl sulfate**, sodium dodecylbenzene sulfonate, fatty acid amides of a methyl taurate, e.g., **sodium methyl cocoyl taurate**, etc. (col.5, lines 17-41).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate sodium methyl cocoyl taurate as taught by Cumming in Klock's process for preparing PVB composition because these surfactants are functionally equivalent and can substitute each other.

Thus, the combination of Klock and Cummings renders claims 6-11 *prima facie* obvious in view of absent of unexpected results commensurate in scope of claims.



**Conclusion**

Other references are considered pertinent to the Applicant disclosure but not cited in this office action include U.S. Patents 6,673,456, 6,541,181, 6,472,054, and 5,559,175 are shown on the Notice of References Cited Form (PTO-892).

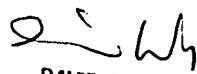
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Bernshteyn whose telephone number is 571-272-2411. The examiner can normally be reached on M-F 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Bernshteyn  
Patent Examiner  
Art Unit 1713

MB  
03/10/2006

  
DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700